

REMARKS

Claim 11 was rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. To overcome this rejection, in line 2 of claim 11, *the tractor* has been replaced by *a tractor*. Applicants thank the Examiner for pointing out this error.

Claim Rejections - 35 USC § 102

Claims 5, 6, 11, and 13 were rejected under 35 U.S.C. 102(b) as being anticipated by Benjamin (U.S. Patent No. 5,826,371). This rejection is respectfully traversed.

It is noted that the burner unit of Benjamin is provided primarily for *burning* organic material outside the burner nozzle (37), while the sterilizer of the instant invention is for *heating* a surface outside the burners (610). Hence, there are differences in the two apparatuses. This amendment is intended to point out or clarify those differences. Therefore, claim 5 is hereby amended to recite a horizontally oriented burner (wherein the flame is primarily aimed horizontally), as clearly shown in Fig. 6. This limitation is in contradistinction to the burner unit of Benjamin which channels a fuel mixture vertically through the tube (37), and thus produces a flame that is aimed primarily vertically (col. 4 lines 20–21).

Regarding claim 13, the skid plate (26) of the Benjamin apparatus “is effective to guide the roller over obstacles and deep ruts and to prevent rocks coming [*sic*] between the roller and the lower heat shield.” (Col. 3 lines 54–56.) Hence, the skid plate (26) of Benjamin may possibly provide, at most, occasional, temporary support of the burner

unit. Claim 13 is hereby amended to limit the skids to engaging the ground at all times during operation of the instant invention. This limitation is indicated in Figs. 1–5 and 7.

Claims 6 and 11 depend on claim 5, which is now assumed allowable. Therefore, those claims dependent on claim 5 are also assumed allowable.

Claims 5, 10, and 15 were rejected under 35 U.S.C. 102(b) as being anticipated by Koboura (JP 06-078658). This rejection is respectfully traversed.

As stated above, claim 5 has been amended to recite a horizontally oriented burner (wherlein the flame is primarily aimed horizontally), as clearly shown in Fig. 6. This limitation is in contradistinction to the burner unit of Koboura which channels a fuel mixture vertically through flame injection holes (1), as clearly seen in Fig. 2, and thus produces a flame that is aimed primarily vertically.

Regarding claim 10, nowhere in the referenced documents by Koboura is a fuel tank mentioned. Thus, the Examiner has failed to establish a case of *prima facie* anticipation, and the burden of proof lies with the Patent Office to provide said case.

Regarding claim 15, Koboura only discloses that “...the above-ground part is...thermally insulated...” Koboura does not disclose “insulation over the skin on a side of the skin opposite the at least one burner” as recited in claim 15. Therefore, Koboura did not anticipate every limitation of claim 15.

Claim Rejections - 35 USC § 103

Claims 1–4 were rejected under 35 U.S.C. 103(a) as being unpatentable over Koboura (JP06078658A) in view of Jones (U.S. Patent No. 5,030,086). This rejection is respectfully traversed.

According to the Office Action, “The method [of Koboura] includes transporting the flamer to a location.” The disclosure document referenced by the Office Action does not suggest the transporting of the Koboura flamer.

Further, a rejection based on §103 must rest on a factual basis, with the facts being interpreted without a hindsight reconstruction of the invention from the prior art. Thus, in the context of an analysis under §103, it is not sufficient merely to identify one reference that teaches several of the limitations of a claim and another that teaches several limitations of a claim to support a rejection based on obviousness. This is because obviousness is not established by combining the basic disclosures of the prior art to produce the claimed invention absent a teaching or suggestion that the combination be made. Interconnect Planning Corp. v. Fiel, 774 F.2d 1132, 1143,227 U.S.P.Q. (BNA) 543, 551 (Fed. Cir. 1985); In re Corkhill, 771 F.2d 1496, 1501-02, 226 U.S.P.Q. (BNA) 1005, 1009-10 (Fed. Cir. 1985).

As the Court of Appeals for the Federal Circuit recently noted, “[w]hen a rejection depends upon a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references.” Ecolochem. Inc. v. Southern Calif Edison, 56 U.S.P.Q. 2d 1065, 1073 (Fed. Cir. 2000). Here, there is simply no motivation provided in either the Koboura or the Jones disclosures for modifying the Koboura method with the skids of Jones.

Thus, the Examiner has failed to establish a case of *prima facie* obviousness. Hence, it is respectfully submitted that claim 1 and the claims dependent therefrom are allowable over the rejection under 35 U.S.C. §103.

Regarding claim 2 which recites, “the flamer is moved about the surface while sterilizing.” The *surface*, as understood by the Examiner, is the soil being thrown up by the *roto-tiller* apparatus of the Koboura invention [paragraph 7 line 3 of the first Office Action: “Koboura teaches a method of sterilizing soil (a surface)’]. This understanding of *surface* is in direct contradistinction to the surface of claim 2, about which the flamer is moved. According to the Examiner’s understanding, the surface would be moved by the flamer, and the flamer would absolutely not be moved about the surface. Because the *surface* in the claim 2 has antecedent in claim 1, the *surface* cannot be both the ground surface and a surface of material being tilled and thrown up to the flame nozzles. Additionally, Jones does not teach “the flamer is moved about the surface [being sterilized] while sterilizing.”

Therefore, it would not have been obvious to modify the Koboura method with the method of Jones to both sterilize a surface and move the flamer about on that surface.

Regarding claim 4, it is argued that “it is deemed obvious to one of ordinary skill in the art to adjust the housing of Koboura in order to adjust the burner angle and assure effective soil disinfection, as desired by Koboura.” But as clearly stated above, a rejection based on §103 must rest on a factual basis, with the facts being interpreted without a hindsight reconstruction of the invention from the prior art. Thus, in the context of an analysis under §103, it is not sufficient merely to identify one reference that teaches several of the limitations of a claim and another that teaches several limitations of a claim to support a rejection based on obviousness. There must be some teaching, suggestion, or motivation to combine the references. Neither Koboura nor Jones taught, suggested any motivation to provide the flamer of Koboura with the

ability to vary burner angles. Further, because Koboura's apparatus throws material up into the flames, there is no motivation to vary the angle of the burners.

Therefore, it must be concluded that it would not be obvious to combine the adjustability of the burners of Jones with the method of Koboura.

Claim 7 was rejected under 35 U.S.C. 103(a) as being unpatentable over Benjamin or Koboura as applied to claim 5 above, and further in view of Clarke (U.S. Patent No. 4,420,901); claim 8 was rejected under 35 U.S.C. 103(a) as being unpatentable over Benjamin or Koboura as applied to claim 5 above, and further in view of Stephenson et al. (U.S. Patent No. 4,805,927); and claim 9 was rejected under 35 U.S.C. 103(a) as being unpatentable over Benjamin or Koboura as applied to claim 5 above, and further in view of Miles (U.S. Patent No. 4,088,122). These rejections are respectfully traversed.

According to the Office Action, "As replacing the hitches of Benjamin and Koboura with a [three-point hitch, quick coupler, tongue hitch] involves no invention, it would have been an obvious modification to the flamers of either Benjamin or Koboura." Yet "no invention" is not a criterion for obviousness. As clearly explained above, a rejection based on §103 must rest on a factual basis, with the facts being interpreted without a hindsight reconstruction of the invention from the prior art. Thus, in the context of an analysis under §103, it is not sufficient merely to identify one reference that teaches several of the limitations of a claim and another that teaches several limitations of a claim to support a rejection based on obviousness. There must be some teaching, suggestion, or motivation to combine the references. The referenced prior art documents do not suggest, teach, or indicate motivation for the modification of the Benjamin or Koboura flamers with a three-point hitch, a quick coupler, or a tongue

hitch. Therefore, the Examiner has failed to establish a case of *prima facie* obviousness and these claims are allowable over the referenced prior art.

Additionally, claims 7, 8, and 9 depend on claim 5 which is now assumed allowable. Therefore, claims 7, 8, and 9 are also assumed allowable.

Claims 11 and 16 were rejected under 35 U.S.C. 103(a) as being unpatentable over Koboura as applied to claims 5 and 10 above, and further in view of Benjamin. This rejection is respectfully traversed.

Regarding claim 11, according to the Office Action, "...the fuel tank of Koboura is located on the flamer." As noted above, the Koboura documents do not disclose a fuel tank at any location. Additionally, the Office Action reads: "...it would have been obvious to one of ordinary skill in the art to mount the fuel tank of Koboura on the towing vehicle." Yet the Office Action fails to provide teaching or suggestion of motivation for such a modification of the Koboura flamer. The weight of the flamer is of no consequence in light of the power and weight of farm tractors. The use of a plurality of flamers with a single vehicle is not considered advantageous because the units may be made as large as needed, while ganging a plurality of flamers would be cumbersome. Hence, there is no motivation for relocating the fuel tank of Koboura to the towing vehicle.

Therefore, it would not have been obvious to one of ordinary skill in the art to mount the fuel tank of Koboura on the towing vehicle.

Regarding claim 16, the Office Action again refers to Koboura's fuel tank. It is again respectfully submitted no fuel tank is mentioned in the Koboura document. It is clearly not obvious to provide a heat shield between the hood and a nonexistent fuel tank on the Koboura apparatus.

Further, explosion was not a consideration for the “heat shield disposed between the hood and the fuel tank.” For an explosion to occur, one needs a combustible substance (fuel) and an oxidizer. The fuel tank of the instant invention cannot explode because no oxidizer is present inside the fuel tank. Hence, it would not have been obvious to put the heat shield of Benjamin between the hood and nonexistent fuel tank of Koboura “to reduce the chance of explosion.”

Claim 12 was rejected under 35 U.S.C. 103(a) as being unpatentable over Benjamin or Koboura as applied to claim 5 above, and further in view of Jones. This rejection is respectfully traversed.

In the Office Action, it is argued that “...it is deemed obvious to one of ordinary skill in the art to adjust the housings of Koboura and Benjamin in order to adjust the burner angle and assure effective soil treatment as desired by Koboura and Benjamin.” It is noted that Benjamin does not disclose anything about soil treatment. His invention is for the purpose of flame cultivation of blueberries, not soil treatment.

Further, as clearly stated above, a rejection based on §103 must rest on a factual basis, with the facts being interpreted without a hindsight reconstruction of the invention from the prior art. Thus, in the context of an analysis under §103, it is not sufficient merely to identify one reference that teaches several of the limitations of a claim and another that teaches several limitations of a claim to support a rejection based on obviousness. There must be some teaching, suggestion, or motivation to combine the references. Neither Koboura, Benjamin or Jones taught, suggested any motivation to provide the flamer of Koboura or Benjamin with the ability to vary burner angles.

Further, because Koboura's apparatus throws material up into the flames, there is no motivation for a pivot to vary the angle of the burners.

Therefore, it must be concluded that it would not be obvious to combine the adjustability of the burners of Jones with the apparatus of Koboura or Benjamin.

Claims 13 and 14 were rejected under 35 U.S.C. 103(a) as being unpatentable over Koboura as applied to claim 5 above, and further in view of Jones. This rejection is respectfully traversed.

Again the Office Action suggests combining references with no teaching, suggestion, or motivation to do so. Neither Koboura nor Jones suggest, teach, or indicate motivation for the modification of the Koboura flamer with skids. Therefore, the Examiner has failed to establish a case of *prima facie* obviousness and these claims are allowable over the referenced prior art. Hence, clearly, it would not be obvious to one of ordinary skill in the art at the time the invention was made to modify the flamer of Koboura with the skids of Jones.

Regarding claim 14, the Jones disclosure clearly does not provide for "skids are adjustable as to height." That any other aspect of the flamer of Jones is adjustable does not make it obvious to adjust the height of the flamer by adjusting the skids. Therefore, it would not be obvious to one of ordinary skill in the art at the time the invention was made to modify the flamer of Koboura with adjustable skids *not* disclosed by Jones.

Claim 17 was rejected under 35 U.S.C. 103(a) as being unpatentable over Opfel (Published U.S. Patent Application No. 2003/0192485). This rejection is respectfully traversed.

As was stated in the Office Action, "Although Opfel does not disclose putting the flamer on skids, it is obvious from the disclosure of Opfel that the flamer is in a

stationary and spaced position over the litter.” That the disinfecting system of Opfel is stationary clearly teaches away from the use of skids. One of ordinary skill in the art would not consider a supporting structure of a stationary apparatus to be a “skid.” According to Webster’s New World Dictionary, skid is defined as follows: **1.** a plank, log, etc., often one of a pair or set, used as a support or as a track upon which to slide or roll a heavy object **2.** a low, movable wooden platform for holding loads or stacks **3.** [pl.] a wooden fender placed against the side of a ship to protect it from damage, as when unloading **4.** a runner used in place of a wheel on an aircraft landing gear **5.** a sliding wedge or drag used to check the motion of a vehicle by pressure against a wheel **6.** the act of skidding

Note that each of these implies movement. A skid is not associated with a stationary object. Further, because Opfel’s apparatus is stationary, there would be no motivation to provide the same with a skid. Opfel did not teach or suggest the use of a skid. Hence, again, the Examiner has failed to establish a case of *prima facie* obviousness and this claim is allowable over the referenced prior art.

Claims 18 and 19 are hereby added to further define the invention.

Claims 2–4, depending on claim 1, are expected also to be allowable as claim 1 is believed to be allowable. Claims 6–15, depending on claim 5, are expected also to be allowable as claim 5 is believed to be allowable.

For the above reasons it is clear that all claims 1–19 are now allowable.

Accordingly a notice to that effect is earnestly solicited.

Respectfully submitted,
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